

5 a second substance comprising at least one of hydroxyethyl starch, dextran, carboxymethyl starch, polyvinyl pyrrolidone (PVP), gelatin derivatives, condensed glucose, glucose, fructose, lactose, glycerin, xylitol, sodium alginate, N-2-hydroxypropylacrylamide, ethylene epoxide, polypropylene glycol, pectin, and pentahydroxyethyl starch, wherein said second substance is present in an amount between about 3 and 18 % total (w/v); and

10 an injection comprising at least one of water, physiological saline, balanced buffers, glucose solution, sodium lactate solution, sodium acetate solution, Tris solution, and glucose and sodium chloride solution, wherein said injection is present in an amount between about 75.1% and 95.5% total (w/v).

21. The pharmaceutical composition of Claim 20, wherein

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said first substance comprises sodium chloride in an amount between about 2.5 and about 2.7 g; and

5 said second substance comprises hydroxyethyl starch in an amount between about 7.0 g and about 8.2 g per 100 mL.

22. The pharmaceutical composition of Claim 20, wherein said second substance comprises hydroxyethyl starch, at least 10% of which has a molecular weight of about 25,000-45,000 atomic mass units.

23. The pharmaceutical composition of Claim 20, wherein said second substance comprises gelatin derivatives having a molecular weight of about 20,000-35,000 atomic mass units, said gelatin derivatives being selected from at least one of urea, conjugated gelatin, modified liquid gelatin, oxidized polygelatin and degraded gelatin polypeptide.

24. The pharmaceutical composition of Claim 20, wherein said second substance comprises at least one of dextran having a molecular weight of about 40,000-230,000 atomic mass units, carboxymethyl starch having a molecular weight of about 30,000-80,000 atomic mass units, PVP having a molecular weight of about 5,000-700,000 atomic mass units, 5 condensed glucose having a molecular weight of about 8,000-12,000 atomic mass units,

sodium alginate having a molecular weight of about 20,000-26,000 atomic mass units, pectin having a molecular weight of about 20,000-40,000 atomic mass units, and pentahydroxyethyl starch having a molecular weight of about 264,000 atomic mass units.

25. A method for preparing the pharmaceutical composition of Claim 20, comprising:

dissolving an amount between about 3 g and 18 g of said second substance in a total of 100 ml of said injection;

adding 1.5 g of said first substance; and

mixing said injection to dissolve said first and second substances therein.

26. The pharmaceutical composition of Claim 20 further comprising:

a third substance comprising at least one of sodium bicarbonate, potassium chloride, magnesium sulfate, calcium chloride, calcium gluconate, calcium lactate, sodium lactate, sodium acetate and Tris (Hydroxymethyl) aminomethane,

wherein the total sodium ion concentration based on said first and third substances does not exceed an equivalent sodium ion concentration in a 6.9 % (w/v) sodium chloride solution.

27. The method for preparing the pharmaceutical composition of Claim 26 comprising:

dissolving an amount between about 3 g and 18 g of said second substance in a total of 100 ml of said injection;

adding 1.5 g of said first substance;

adding an amount between 0 and about 5.4 g of said third substance, such that the total sodium ion concentration based on said first and third substances does not exceed an equivalent sodium ion concentration in a 6.9 % (w/v) sodium chloride solution; and

mixing said injection to dissolve said first, second, and third substances therein.

28. The pharmaceutical composition of Claim 26, wherein

said first substance comprises sodium chloride in an amount of about 1.5 g;

said second substance comprises hydroxyethyl starch in an amount of about 3 g
and dextran in an amount of about 9 g;

said third substance comprises sodium bicarbonate in an amount of about 3.4 g;

and

said injection comprises physiological saline.

29. The pharmaceutical composition of Claim 26, wherein

said first substance comprises sodium chloride in an amount of about 2.0 g

said second substance comprises PVP in an amount of about 12 g;

said third substance comprises sodium acetate in an amount of about 4 g; and

said injection comprises a 10% glucose solution.

30. The pharmaceutical composition of Claim 20, wherein

said first substance comprises sodium chloride in an amount of about 2.7 g;

said second substance comprises hydroxyethyl starch in an amount of about 7.6 g;

and

said injection comprises water.

31. The pharmaceutical composition of Claim 20, wherein

said first substance comprises sodium chloride in an amount of about 1.5 g;

said second substance comprises sodium alginate in an amount of about 18 g; and

said injection comprises water.

32. The pharmaceutical composition of Claim 20, wherein

said first substance comprises sodium chloride in an amount of about 4.4 g;

said second substance comprises condensed glucose in an amount of about 7 g
and N-2-hydroxypropylacrylamide in an amount of about 2 g; and

said injection comprises water.

33. The pharmaceutical composition of Claim 20, wherein

said first substance comprises sodium chloride in an amount of about 4.8 g;

said second substance comprises fructose in an amount of about 5 g and xylitol in
an amount of about 4 g; and

said injection comprises water.

34. The pharmaceutical composition of Claim 20, wherein

said first substance comprises sodium chloride in an amount of about 6.0 g;

said second substance comprises glycerin in an amount of about 2 g and lactose in
an amount of about 5 g; and

said injection comprises water.

35. The pharmaceutical composition of Claim 20 comprising:

a first substance comprising sodium chloride in an amount between about 1.5%
and 5.9%(w/v);

a second substance comprising at least one of hydroxyethyl starch, dextran,
carboxymethyl starch, polyvinyl pyrrolidone (PVP), gelatin derivatives, condensed
glucose, glucose, fructose, lactose, glycerin, xylitol, sodium alginate, N-2-
hydroxypropylacrylamide, ethylene epoxide, polypropylene glycol, pectin, and

pentahydroxyethyl starch, wherein said second substance is present in an amount between about 3 and 18 % total (w/v); and

10 an injection comprising at least one of water, physiological saline, balanced buffers, glucose solution, sodium lactate solution, sodium acetate solution, Tris solution, and glucose and sodium chloride solution, wherein said injection is present in an amount between about 76.1% and 95.5% total (w/v),

36. The pharmaceutical composition of Claim 35 further comprising:

a third substance comprising at least one of sodium bicarbonate, potassium chloride, magnesium sulfate, calcium chloride, calcium gluconate, calcium lactate, sodium lactate, sodium acetate and Tris (Hydroxy methyl) aminomethane,

E1 5 wherein the total sodium ion concentration based on said first and third substances does not exceed an equivalent sodium ion concentration in a 5.9 % (w/v) sodium chloride solution.

37. A pharmaceutical composition consisting essentially of:

a first substance consisting essentially of sodium chloride in an amount not less than about 1.5% (w/v);

5 a second substance comprising at least one of sodium bicarbonate, potassium chloride, magnesium sulfate, calcium chloride, calcium gluconate, calcium lactate, sodium lactate, sodium acetate and Tris (Hydroxy methyl) aminomethane, wherein said second substance is present in an amount between about 0 and 5.4% (w/v).

10 a third substance consisting essentially of at least one of hydroxyethyl starch, dextran, carboxymethyl starch, polyvinyl pyrrolidone (PVP), gelatin derivatives, condensed glucose, glucose, fructose, lactose, glycerin, xylitol, sodium alginate, N-2-hydroxypropylacrylamide, ethylene epoxide, polypropylene glycol, pectin, and pentahydroxyethyl starch, wherein said third substance is present in an amount between about 3 and 18 % total (w/v); and

an injection consisting essentially of at least one of water, physiological saline,
15 balanced buffers, glucose solution, sodium lactate solution, sodium acetate solution, Tris
solution, and glucose and sodium chloride solution, wherein said injection is present in an
E) amount between about 75.1% and 95.5% total (w/v),

wherein the total sodium ion concentration based on said first and second
substances does not exceed an equivalent sodium ion concentration in a 6.9 % (w/v) sodium
20 chloride solution.
